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August 15, 2013

To: Each Supervisor

From: Tom Tindall
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Subject: **ENERGY & ENVIRONMENTAL POLICY REPORT #14**

This is the 14th semiannual report to discuss the ongoing work by the County Office of Sustainability (COS) within the Internal Services Department (ISD) in support of the County's Energy and Environmental Policy.

Many of the projects and programs described in this report were initiated and implemented using grants received under the American Recovery and Reinvestment Act (ARRA), as documented in past Policy reports. The ARRA grants have now essentially ended. A status summary for each ARRA grant, including remaining funds and activities, is included at the end of this report.

Nearly all of the former ARRA programs will be continued through calendar years 2013 and 2014 using funds received from the California Public Utilities Commission (CPUC). These programs were authorized by the CPUC and ordered to be made available directly within the County's buildings and throughout the Southern California region. The County, through ISD, was named as the administrator of the newly established Southern California Regional Energy Network (SoCalREN). In January 2013, your Board authorized ISD to accept funds from the CPUC to administer and implement programs under the SoCalREN.

Below are updates on various programs and initiatives overseen by ISD, as described in the following sections:

1. Programs for Internal County Operations
2. Programs for Los Angeles County and the Southern California Region
3. Public Agency Programs
4. LARC and Other Activities
5. ARRA Grants Closeout

1. PROGRAMS FOR INTERNAL COUNTY OPERATIONS

Energy Management Activities

ISD's Energy Management Division continues to provide project implementation and other support for County departments. A list of ongoing activities is provided below.

ISD continues its very successful building retro-commissioning program which "tunes up" heating, ventilating and air conditioning (HVAC) systems to ensure optimal system and equipment performance, which in turn results in energy efficiency and utility savings. Retro-commissioning projects are ongoing at four Sheriff's stations, the Los Padrinos Juvenile Hall, and three health centers.

Using Los Angeles Department of Water and Power (LADWP) litigation settlement funds that were made available in 2007, ISD is installing efficient chillers and ancillary equipment at the LAC+USC Medical Center central plant. These projects are expected to save the facility about 1.8 million kilowatt-hours (kWh) or \$250,000 annually.

Using ISD crafts personnel, higher efficiency fluorescent lamps are being replaced at a number of County facilities (Hall of Administration, Registrar Recorder Headquarters, ISD Data Center, Public Library Headquarters) under ISD's Energy Investment Program (EIP). The EIP is a "revolving loan fund" program which uses ARRA seed funding to implement efficiency projects. Department buildings which benefit from the projects repay the EIP fund through their utility savings until the project costs are paid back.

Older emissions reduction systems are being retrofitted at the Civic Center Cogeneration Plant, which will also provide operating efficiencies by increasing plant electric output. This project will increase annual revenues for the plant by about \$1.7 million.

Also at Civic Center Cogeneration Plant, a steam turbine generator and cooling tower water pumps are being retrofitted, which will result in increased plant electric output and more efficient operations. The combined results of these projects will result in over \$1 million annual operating costs savings.

ISD also provides ongoing coordination with Public Works, Parks and Recreation, and Sheriff's Department on lighting upgrades, computer server virtualization projects, and efficient pool pump retrofit projects.

ISD is supporting Department of Health Services' Capital Projects program to replace old, inefficient boilers at Olive View Medical Center, Rancho Los Amigos Rehabilitation Center and Harbor/UCLA Medical Center. These projects are required to meet new South Coast Air Quality Management District (SCAQMD) emissions restrictions.

Fleet and Transportation Programs

ISD continues to assist other departments in the areas of fleet and transportation, funded by grants and other sources, to reduce the County's greenhouse gas (GHG) emissions. This work is described below.

ISD assisted the Sheriff's Department in obtaining two Carl Moyer Program grants from the South Coast Air Quality Management District, totaling \$7 million, to help offset the costs of replacing 37 of Sheriff's 82 Prisoner Transportation Buses. The combined emissions from all 37 new buses will produce fewer emissions than just one of the old buses being retired. The first 16 buses are now in service. Nine additional buses are budgeted in the Fiscal Year 2013-14 Budget. ISD is assisting the Sheriff's Department with project management and in fulfilling the technical and reporting terms and conditions of the grant.

As co-lead with the LADWP, ISD and 21 other agencies received an \$840,000 award from the California Energy Commission (CEC) to install Electric Vehicle (EV) charging infrastructure across the County. Leveraging the CEC award, ISD obtained an additional \$193,000 in matching funds from the Mobile Source Air Pollution Reduction Review Committee (MSRC) to install EV charging infrastructure at various County sites. ISD is working with six County departments to install these 93 chargers at 30 sites throughout the County.

With assistance from Southern California Edison (SCE) and LADWP, ISD developed a multi-year Master Purchasing Agreement for EV-charging infrastructure. Twelve firms representing 12 different manufacturers were awarded. This Master Agreement is available to other public agencies throughout the region and will be used by the SCAQMD and the LADWP. The State of California is "piggy-backing" on the County's Agreement and has extended it to all the State's political subdivisions.

ISD was part of the Governor's Interagency Working Group on Zero-Emission Vehicles (ZEV) in the development of its "ZEV Action Plan, a Roadmap to 1.5 Million Zero Emissions Vehicles on California Roadways by 2025". ISD has also contributed to the forthcoming "Zero-Emission Vehicles in California: Community Readiness Guidebook" from the Governor's Office of Planning and Research.

Countywide Green Building Program

As part of continued efforts to support efficiency improvements to existing County buildings, ISD has developed a County Green Building Program that will offer other departments Leadership in Energy and Environmental Design (LEED) certification services, LEED feasibility assessments, technical support for departments seeking to perform their own LEED certification, and other green building measures

implementation support. All of these services complement ISD's existing Energy Management services and other sustainability policies adopted by the Board.

As a reporting tool for the Green Building Program, ISD has developed a Green Building Dashboard, which provides County building managers the ability to monitor energy usage and other sustainability measures in selected key facilities. Development and implementation of the Energy Efficiency portion of the Dashboard has been completed and the site went live in June 2012. At the same time the Dashboard went live, it was also linked to the Green L.A. County website (www.green.lacounty.gov), so that it can be accessed by County facility managers. The Energy Efficiency portion of the Dashboard has fully developed reporting tools, which link into ISD's Enterprise Energy Management Information System (EEMIS) data-gathering program, allowing facility managers to access historic, recent, and, in some cases, real-time energy use data.

The Environmental Programs portion of the Dashboard was developed in a second phase effort, and was launched in June 2013. This component of the Green Building Dashboard is constructed around requirements for LEED certification of existing facilities. The survey and reporting tools are meant to provide guidelines and resources for facility managers to "green" their buildings and operations, particularly as related to best practices in the areas of energy, water, purchasing, cleaning, and indoor environmental quality.

2. PROGRAMS FOR THE COUNTY AND THE SOUTHERN CALIFORNIA REGION

Energy Upgrade California in Los Angeles County (EUCLA)

EUCLA is a comprehensive energy efficiency program for residential properties that is sponsored by the County, in conjunction with the local investor owned utilities. ISD acquired ARRA grants, which have been documented in past reports to your Board.

ISD has been reporting quarterly to your Board on the results and outcomes of the variety of EUCLA programs. We have recommended ending the quarterly reports due to the termination of the ARRA grants. We are including a summary of the accomplishments and results of EUCLA as Attachment I, and will continue reporting on the results of the ongoing CPUC funded EUCLA subprograms in this Energy & Environmental Policy report.

The EUCLA subprograms are described below.

BASIC HOME UPGRADE & ADVANCED HOME UPGRADE:

These programs provide incentives for comprehensive, energy efficient retrofits in single-family homes by promoting interactive combinations of measures such as: insulation, HVAC equipment replacement, duct replacement/repairs, air sealing, radiant

barriers, hot water systems, etc., rather than incentivizing individual equipment replacement.

MULTIFAMILY HOME UPGRADE:

Similar to the Basic and Advanced Home Upgrades for single-family homes, this program provides incentives to multi-family building owners to assess and implement comprehensive, interactive energy measures. The Multifamily Home Upgrade Program also promotes energy upgrades for portions of buildings where utilities are paid by both the tenants and the landlord.

ENERGY CHAMPIONS:

This program utilizes non-profit community organizations that have organized networking sources within their community to promote EUCLA and generate project leads. These organizations will receive an incentive when they can verify that an EUCLA project was completed due to their lead generation.

GREEN BUILDING LABELING (GBL):

This program consists of outreach, training and community workshops at various events to recruit and educate realtor professionals on the value of green building certification and green elements in home upgrade projects. This program also provides workshops targeted to real estate professionals so they may educate homeowners on the value of whole house energy efficiency retrofits during a home sale.

SOCIAL MEDIA:

EUCLA uses current social media outlets to reach target audiences in order to promote and educate the public about EUCLA. Social media offers various ways to encourage program participation, disperse energy-saving tips and environmentally friendly news stories, and help build a sustainable connection between EUCLA contractors and potential participants.

CONTRACTOR CO-OP MARKETING:

This program assists participating EUCLA contractors by providing matching funds reimbursements to contractors who conduct their own marketing and advertising. The contractor marketing and advertising materials must meet EUCLA brand guidelines to receive the matching funds.

ASSESSMENT VOUCHERS AND DISCOUNT COUPONS:

This program provides vouchers and discount coupons to homeowners interested in pursuing EUCLA upgrades. Vouchers and coupons help overcome the first step costs of an EUCLA Advanced Home Upgrade project, which requires a home energy

assessment. Vouchers are used to fully offset the costs of the home assessments; discount coupons offset some of the home assessment costs.

HVAC CONTRACTOR:

The HVAC Contractor program supports the general contractor community (mostly HVAC contractors) by providing training, recruitment and technical assistance to these contractors to help them become certified EUCLA contractors. The program also rewards these contractors for converting routine individual equipment replacement projects into comprehensive EUCLA projects.

EUCLA SINGLE FAMILY HOME FINANCING:

Through a partnership with Matador's Credit Union, single family homeowners may finance their EUCLA Home Upgrade projects. Matador's Credit Union provides a 4.99%, 5-year term, unsecured loan of up to \$40,000 to qualified borrowers. In order to generate initial program participation with competitive terms and conditions, the program uses a loan loss reserve credit enhancement, which helps protect the lender against losses due to defaulted loans.

NON-RESIDENTIAL PROPERTY ASSESSED CLEAN ENERGY (PACE) FINANCING:

ISD and the Treasurer & Tax Collector (TTC) are working together to administer a countywide PACE financing program for non-residential properties. The program provides financing through County issued bonds for private sector energy projects, which are then paid back through assessments placed on the building owners' property tax statements. The program also provides marketing, education, recruitment, and technical support to property owners. The program's first PACE assessment was funded in July of 2013 and has an active application pipeline of over 40 projects.

3. PUBLIC AGENCY PROGRAMS

Southern California Regional Energy Center (SoCalREC)

Using ARRA and CPUC grant funding, ISD has developed a program to support the implementation of energy efficiency projects in public agency buildings and facilities throughout the Southern California region, the SoCalREC. This program was initially piloted by providing the following centralized services to assist other local governments: technical support in the form of detailed audits; engineering and project management services; procurement support in developing standardized project and vendor solicitations and contract agreements; and expansion of ISD's EEMIS by allowing other entities to procure EEMIS related services and support. With the termination of the ARRA and CPUC grants, this program will be funded using CPUC resources. The SoCalREC sub-programs are described below.

PUBLIC AGENCY BUILDING RETROFITS:

This program will continue to offer technical support for integrated, comprehensive retrofits in local government buildings and facilities. The services are provided through centralized and standardized processes which include: detailed audit and engineering, project solicitations, project management, public agency financing (described later) and project commissioning support. This program, in this form, mitigates the need for all public agencies to develop comprehensive, in-house resources to assess and implement projects. These services complement services provided by the utilities (e.g., initial audits and incentives processing).

The program will also pilot the provision of these services to other public agencies like water districts, transportation agencies and schools.

AGGREGATED PROCUREMENT:

This program simplifies and standardizes the process for public agencies to identify and implement single measure energy improvements, select vendors, manage bid processes and pricing, track energy savings and finance projects. The program is similar to ISD's Master Agreement process for energy projects in that it pre-qualifies vendors to do the work and utilizes a standard, pre-approved agreement, which the public agencies would execute with the vendors.

PUBLIC AGENCY MASTER LEASE FINANCING:

This financing program is available to all public agencies and provides lease financing to implement energy projects. The SoCalREC has prequalified a set of financial institutions to provide the financing and has developed a simplified, standard agreement which the public agencies would execute with the financial institutions. Financing energy projects has been a challenge for many public agencies, including the County, due to the lack of standard, non-biased financing program terms and conditions. This is a program that will also benefit the County and ISD in delivering more energy projects.

EEMIS EXPANSION:

As mentioned earlier, ISD's EEMIS has been made available to other local governments to provide energy management services. Other agencies pay an incremental portion of ISD's EEMIS operating costs to join (which is a fraction of the cost of purchasing their own system) and ISD receives revenues for administration, implementation and technical support. To date, over 70 cities have signed on to using ISD's EEMIS.

WATER/ENERGY NEXUS:

This program seeks to design and implement a pilot with water agencies that integrates energy savings projects in water system operations and in upgrading water utilities buildings and facilities. Because handling water is energy intensive, emphasizing certain water system enhancements in wholesale delivery, retail delivery and wastewater

treatment has a dual societal benefit in conserving both water and energy. SoCalREC will work with a handful of water utilities to develop programs for broader acceptance.

COMMUNITY ENERGY EFFICIENCY PROJECT MANAGEMENT SYSTEM (CEEPMS):

This program will provide a few pilot cities with the capability to identify and track energy efficiency projects through an online permit tracking system which prioritizes and expedites the permitting process. The software to be used will match permits applied for against incentives available to ensure the project owner is aware of them.

4. LARC AND OTHER ACTIVITIES

Los Angeles Regional Collaborative for Climate Action and Sustainability (LARC)

ISD serves as the County's representative to the LARC. LARC is an organization committed to supporting climate mitigation and adaptation initiatives by convening representatives from local government, non-profits, academia, and industry to define meaningful approaches to reaching collective climate and sustainability goals. Current LARC efforts are described below.

Utilizing ARRA funding, ISD oversaw the creation of a Regional Greenhouse Gas (GHG) Inventory for all of the cities and unincorporated areas of in the County. The Inventory has been completed and the final report and findings were released in April of 2013. GHG inventories at the incorporated city level (and unincorporated County) and by zip code were combined with other publicly available demographic information to provide an analysis of GHG production under a variety of unique benchmarks. A next step for this program will be to run a similar analysis of GHG inventories using more disaggregated energy consumption information from the utilities, combined with powerful building energy consumption modeling developed by UCLA and U.C. Davis and County Assessor database information about individual buildings and parcels.

In July 2012, the LARC published a study, titled "*Mid-century Warming in the Los Angeles Region*", which utilizes sophisticated computer projections done by UCLA to predict the potential impacts climate change will have in the Los Angeles region. This preliminary work predicts climate impacts due to unabated GHG production in the region at 1.2 kilometer scale across the region. Additional analysis related to precipitation projections is currently underway and will be released in coming months. More information on this work can be found at c-change.la. As a result of this effort, your Board has recently instructed many of the County's departments to report on what efforts they are undertaking to address changes in their public facing operations due to these predicted impacts.

LARC, in conjunction with Los Angeles County Metro, received a \$1 million grant from the Strategic Growth Council to complete a Regional Climate Action Plan, titled

"A Greater LA: The Framework for Climate Action and Sustainability". Utilizing these grant funds, the LARC will build from the scientific studies described above to conduct an extensive, stakeholder driven process to develop cohesive climate mitigation policies and model ordinances for use by jurisdictions within the County.

Legislative and Regulatory Analysis and Support

ISD, working with other departments and the CEO's Intergovernmental Relations Office (IGR), continues to monitor and track pertinent legislative activities, especially those which support local government and regional GHG reduction programs and projects. Among the key legislation that ISD will continue to monitor is the implementation of AB 32 and Proposition 39 funds.

AB 32 ordered the creation of a carbon emissions market under which emissions allocations could be sold and purchased (Cap & Trade). AB 1532 became law in 2012 and established a framework under which revenues from the State's Cap & Trade market would be utilized to further mitigate GHG production. As described in previous Policy reports, ISD has been participating in regulatory proceedings at the CPUC, CEC and California Air Resources Board where program implementation and funding using these revenues are established. ISD has introduced legislative agenda language which proposes County support and activity for acquiring these funds for the County and other local governments. The initial 2012 and 2013 revenues generated from Cap & Trade market activities was kept in the 2013 State budget to help reduce the budget deficit. However, future years' revenues will be allocated under new legislation.

Proposition 39 was approved by California voters last fall and provides over \$500 million per year to support energy efficiency projects in public buildings, clean energy workforce development programs, and clean energy financing programs. The legislature and the Governor supported using most of this funding for the State's schools. However, the legislation implementing Prop 39 funds did indicate that other public agencies would receive some of this funding in the future.

5. ARRA GRANTS CLOSEOUT

Many of the projects and programs described in this report were initiated and administered using grants received under ARRA which have been documented in past Policy reports. Below is a table describing the status of these grants which, for the most part, have been spent down and will be terminating in 2013.

ARRA Program	Original Amount	Status
Energy Efficiency and Conservation Block Grant (EECBG)	\$34.5 million	Funds are fully expended and grant expires in September of 2013.
California Energy Commission EECBG	\$9.0 million	Original grant funds are fully expended. ISD accepted an additional \$11 million to support existing, long-term energy financing programs. Grant extended to 2017.
Better Buildings Program (BBP) Grant	\$30.0 million	ISD/COS managed statewide BBP grant program. Funds are fully expended. Grant expires in September of 2013.

As mentioned earlier, Attachment I contains a graphic summary of the major results and outcomes of the ARRA programs administered by the County which supported EUCLA. More detailed reporting about the successes and lessons learned under the County's ARRA grants are being developed for submittal to the State and the Department of Energy. We will transmit this report in the next Energy & Environmental Policy Report.

If you have any questions, please contact me at (323) 267-2101 or Howard Choy at (323) 267-2006.

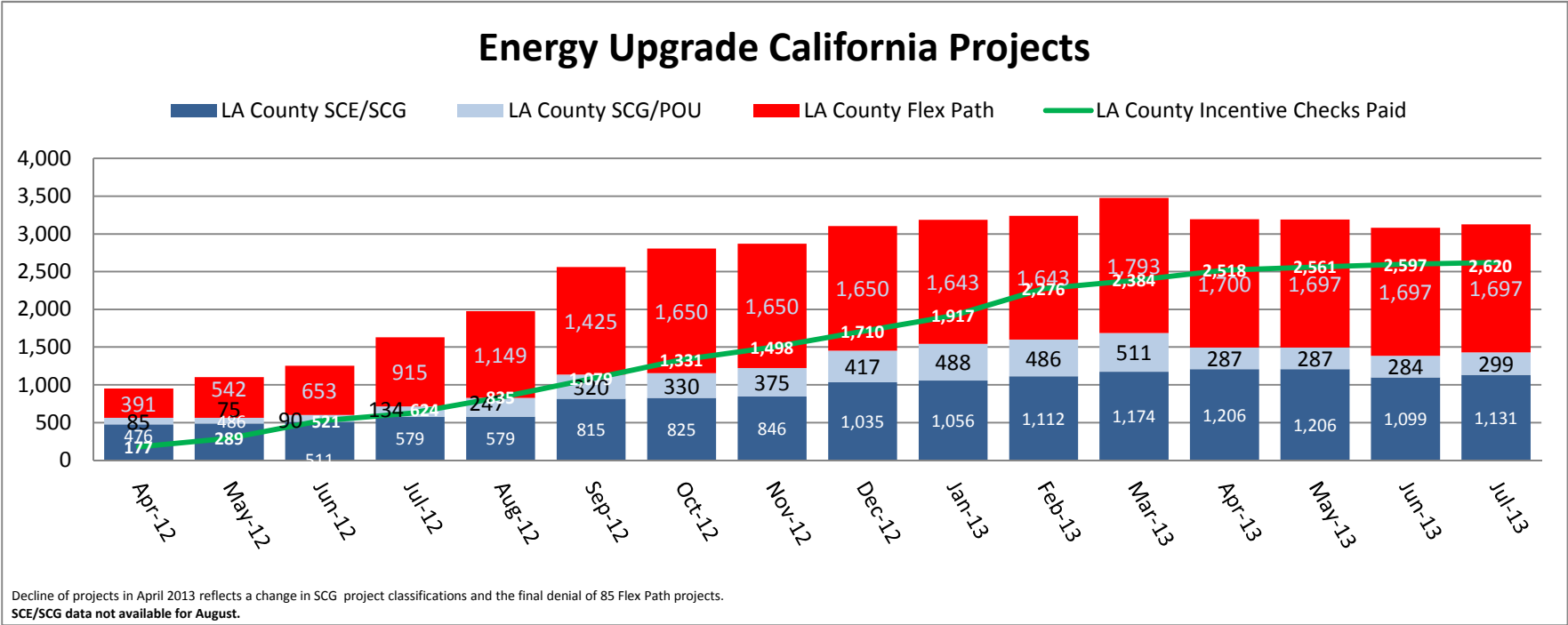
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Attachment

c: ISD Board Deputies
Chief Executive Officer
Operations Cluster, Deputy CEO
Each Department Head



LA County Retrofit Overview



Retrofit Project Type	Percent of Projects	Number of Projects	Average Savings	Average Cost	Average Rebate (Utility + LA County)
Advanced Path	39.3%	1,111	31.2%	\$12,577	\$2,813
Basic Path	0.7%	20	10.0%	\$4,302	\$1,000
Flex Path** (launched 1/16/12)	60.0%	1,698	16.7%**	\$6,211	\$1,500***

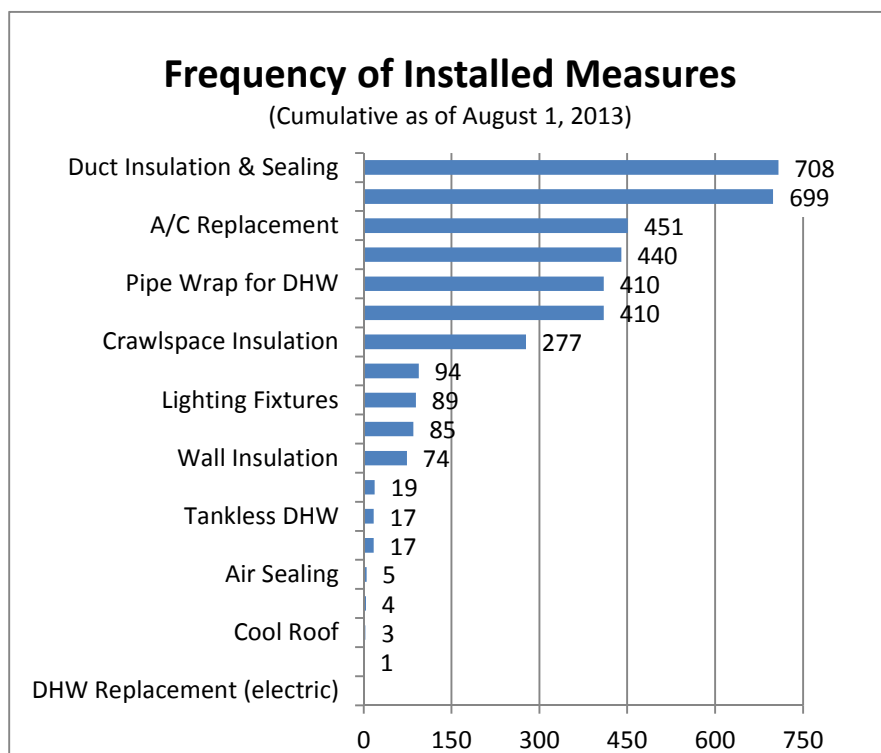
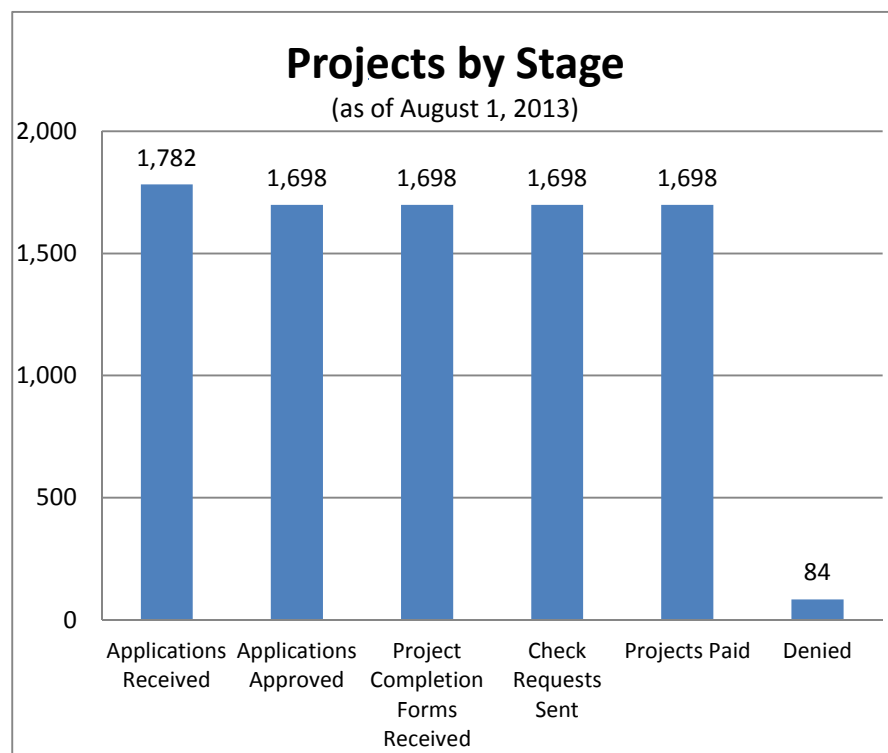
*Original SCE Estimate: 90% Basic/10% Advanced; estimated average savings <15%.

**Based on EnergyPro savings estimates from a sample of 115 retrofit projects.

***This incentive is paid by LA County only. Utility single measure rebates may apply.



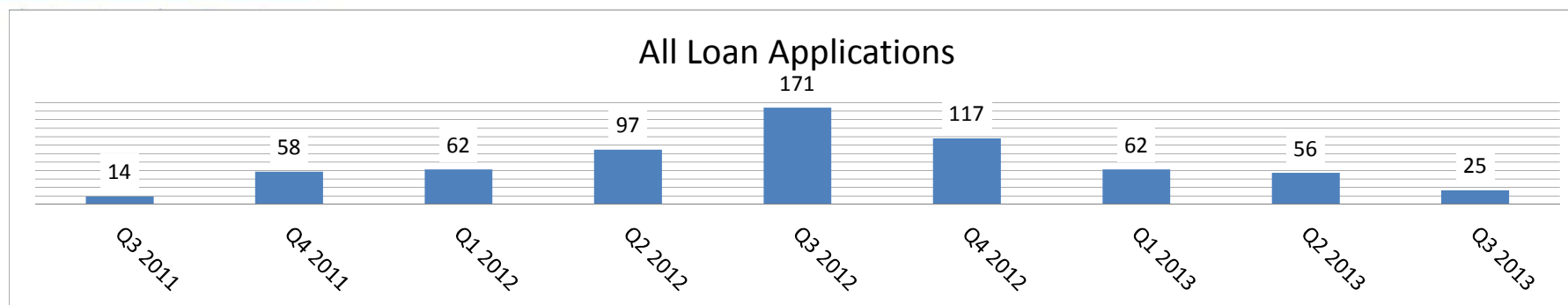
LA County Flex Path



Multiple Flex Path Projects Installed per Home			
Flex Path Projects per Home	Number of Homes	Number of Applications	Percent of Projects
1	974	974	57.4%
2	293	586	34.5%
3	28	84	4.9%
4	11	44	2.6%
5	2	10	0.6%
Totals	1,308	1,698	100%



LA County Residential Financing



- Dec. 2011: 2% loan offered. Rate of applications received per month increase 2.5x

*Other Cities include those that have 13 applications or fewer.

- Mar. 2012: Included Flex Path projects for financing.

Summary Dashboard (Funded + Committed Loans)

	Count of Applications	Total Loan Value	EECBG 2% Buy Down*	EECBG 10% LLR	CEC 10% LLR
Deposits	-	-	\$426,603.88	\$400,040.97	\$1,000,000.00
Funded Loans	277	\$4,183,063.85	\$426,603.88	\$349,103.96	\$390,677.61
Approved Loans	31	\$523,627.18	\$0.00	\$10,472.54	\$41,890.17
Total	308	\$4,706,691.03	\$426,603.88	\$359,576.50	\$432,567.78
Remaining Funds	-	-	\$0.00	\$40,464.47	\$567,432.22

*Dec. 2012: 2% loan is no longer offered.

*Original SCE Estimate: 90% Basic/10% Advanced; estimated average savings <15%.

**Based on EnergyPro savings estimates from a sample of 115 retrofit projects.

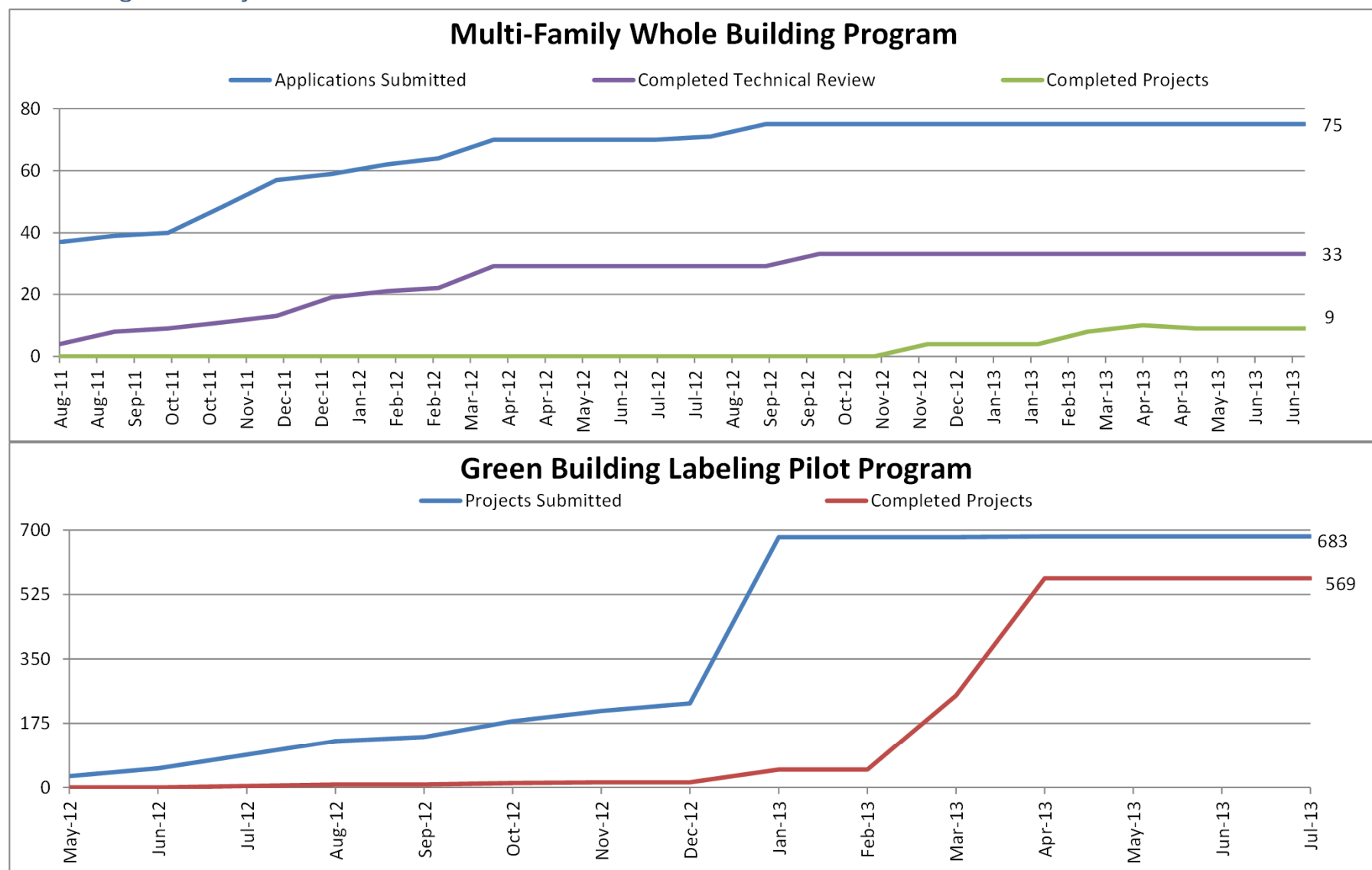
***This incentive is paid by LA County only. Utility single measure rebates may apply.

Application Status by Geographical Area

	Approved	Pending	Under Review	Cancelled	Declined	Defaulted	Total
City of Los Angeles	12	0	76	34	58	1	181
Incorporated	16	5	181	116	112	1	431
Unincorporated	3	0	19	20	6	1	49
Outside LA County	0	0	1	0	0	0	1
Total	31	5	277	170	176	3	662



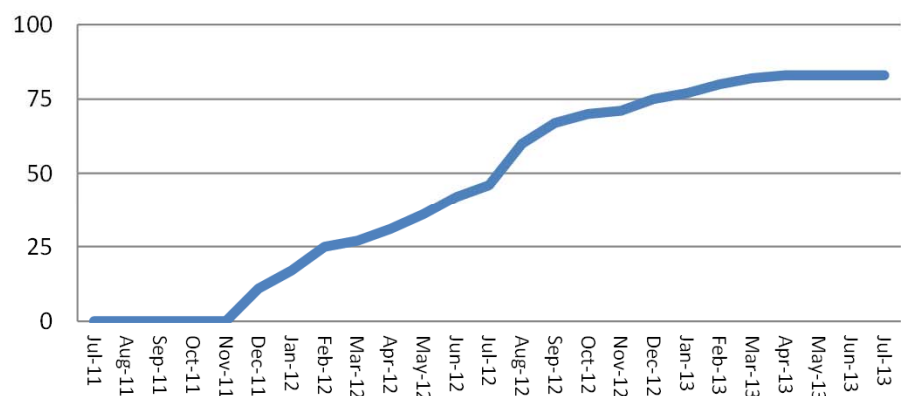
LA County Multi-Family Whole Building Program and Green Labeling Pilot Program



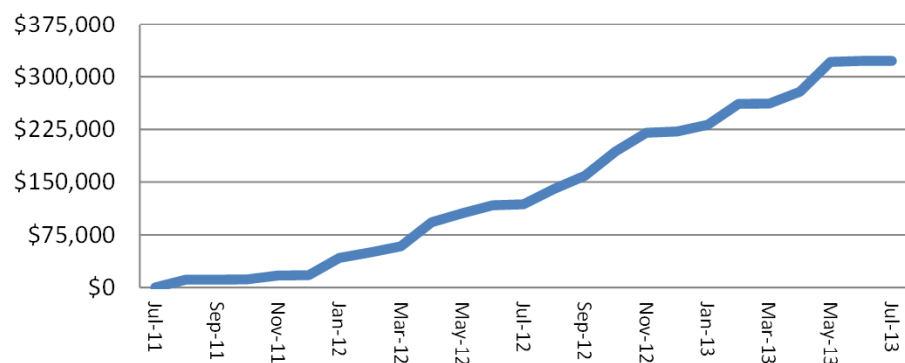


LA County Co-Op Marketing

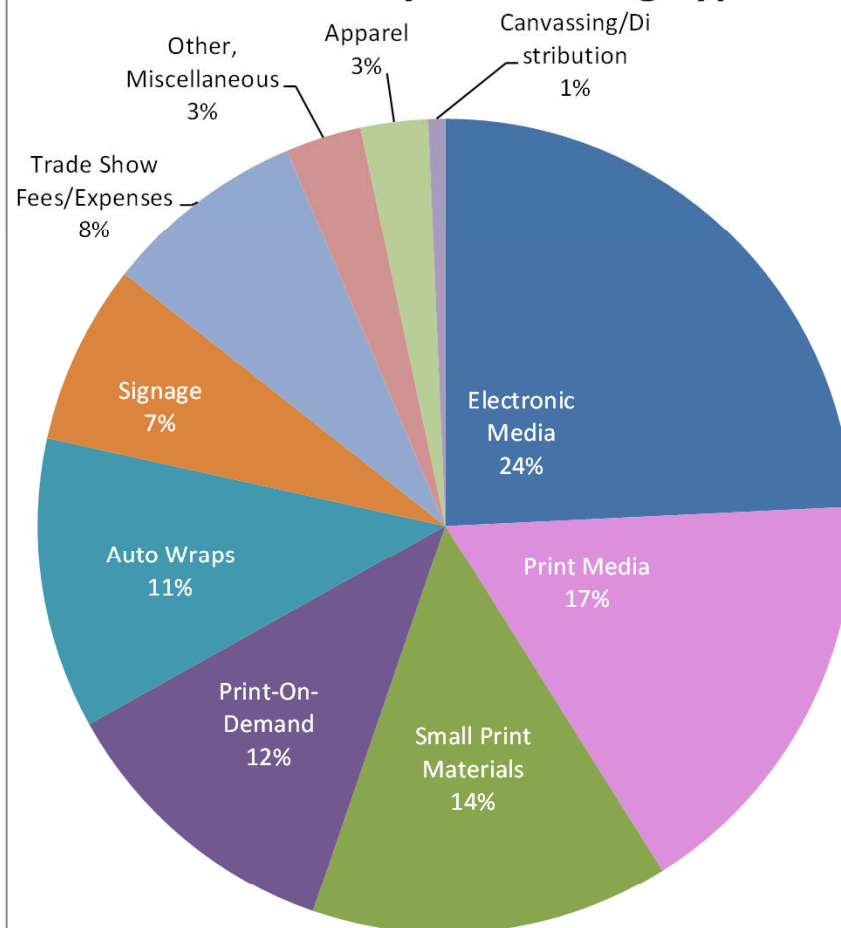
Participants



Funds Awarded



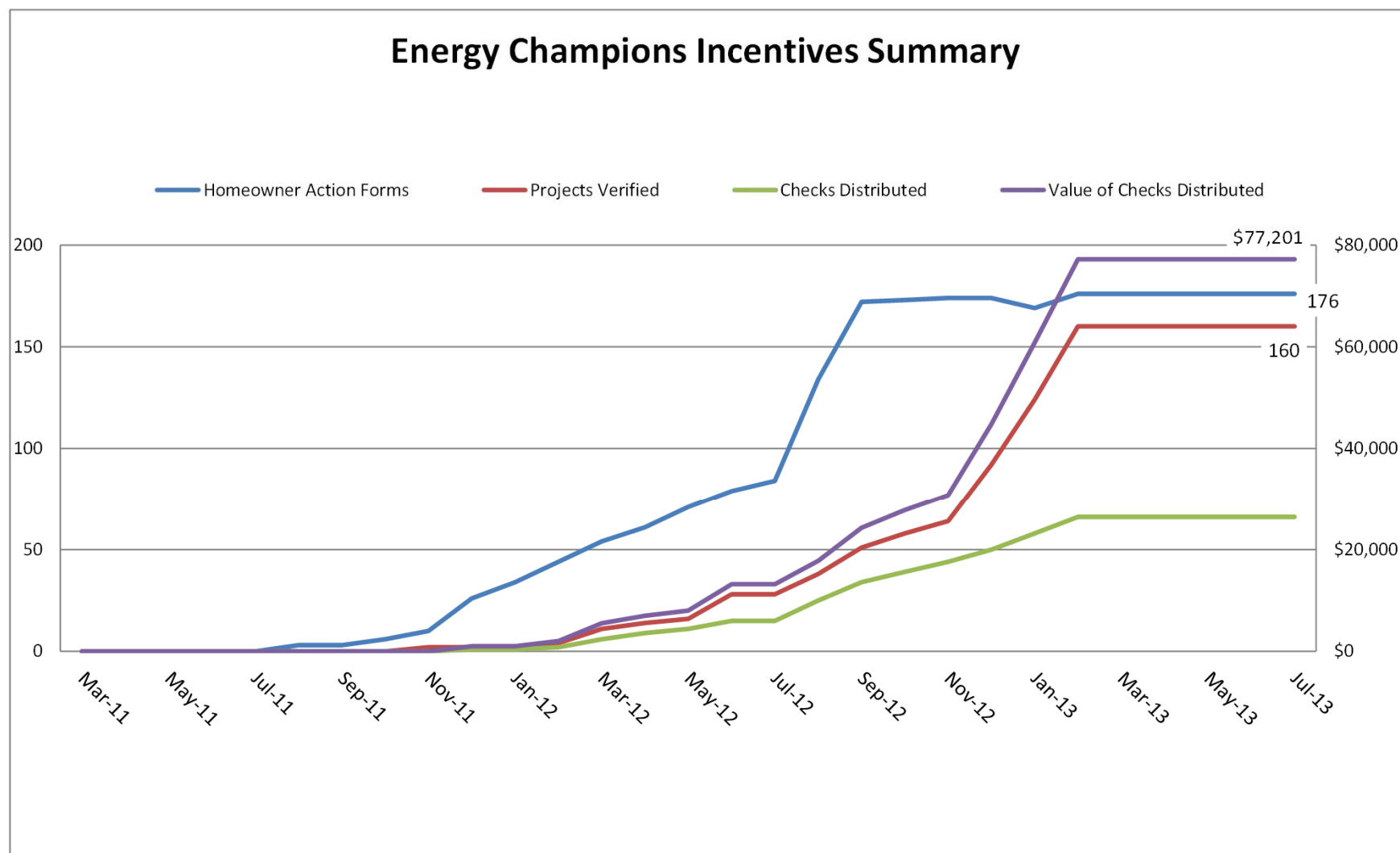
Funds Used by Advertising Type



Co-Op Marketing funds come from L.A. County grant money and are intended to offset the cost of marketing and outreach for EUCLA Contractors. The program provides 50% matching funds (up to \$40,000 per contractor) to contractors who submit marketing and advertising invoices for reimbursement. Eligible materials must include the EUCLA logo and be used within the County of Los Angeles.

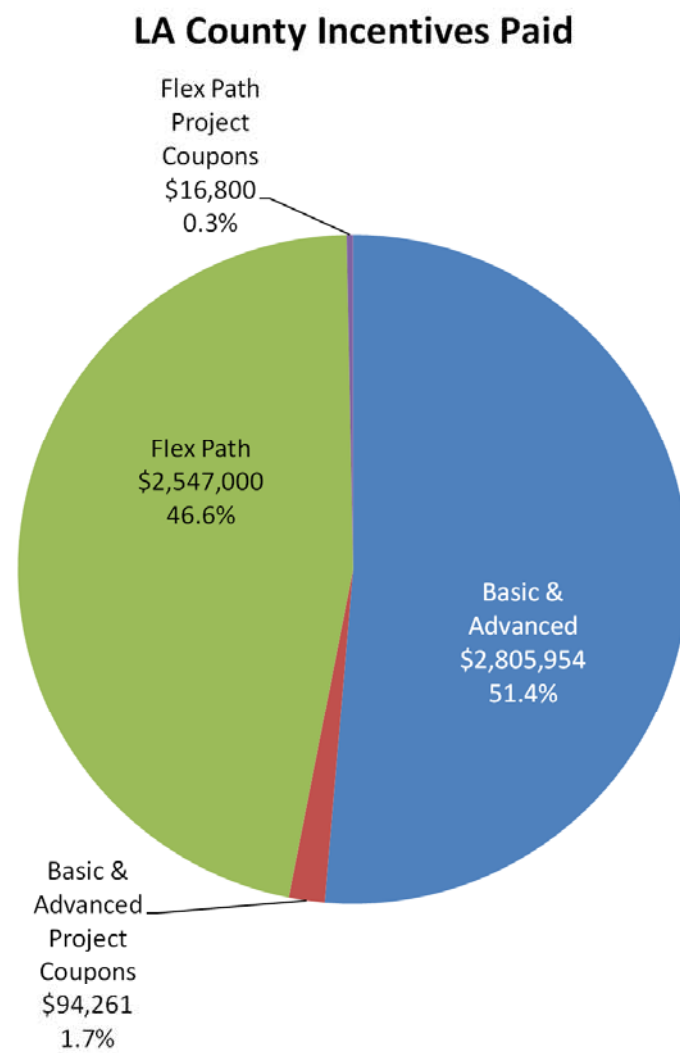
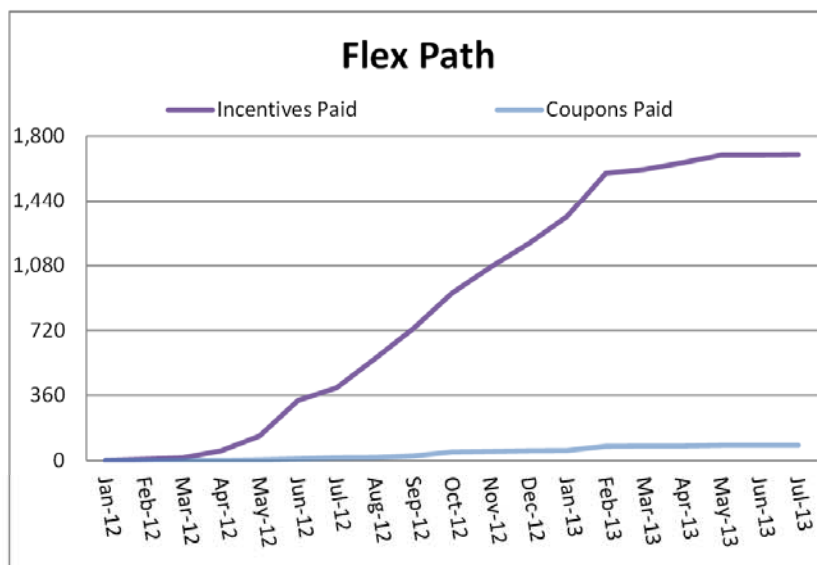
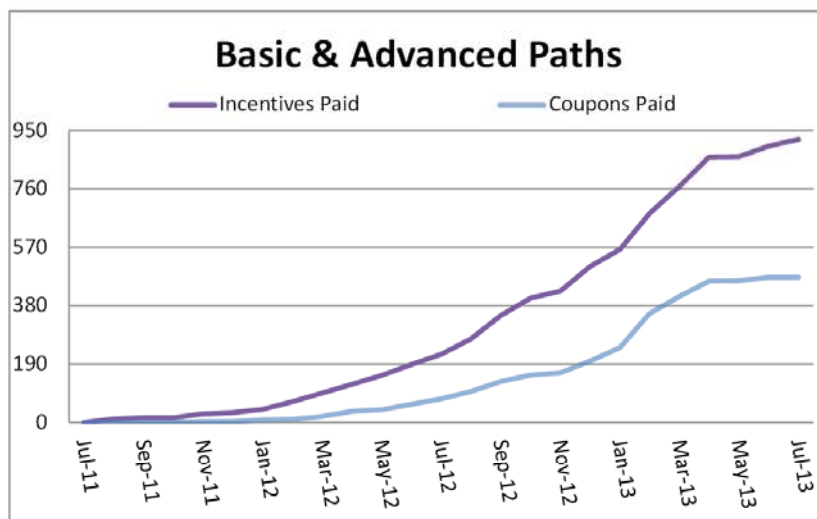


LA County Energy Champions



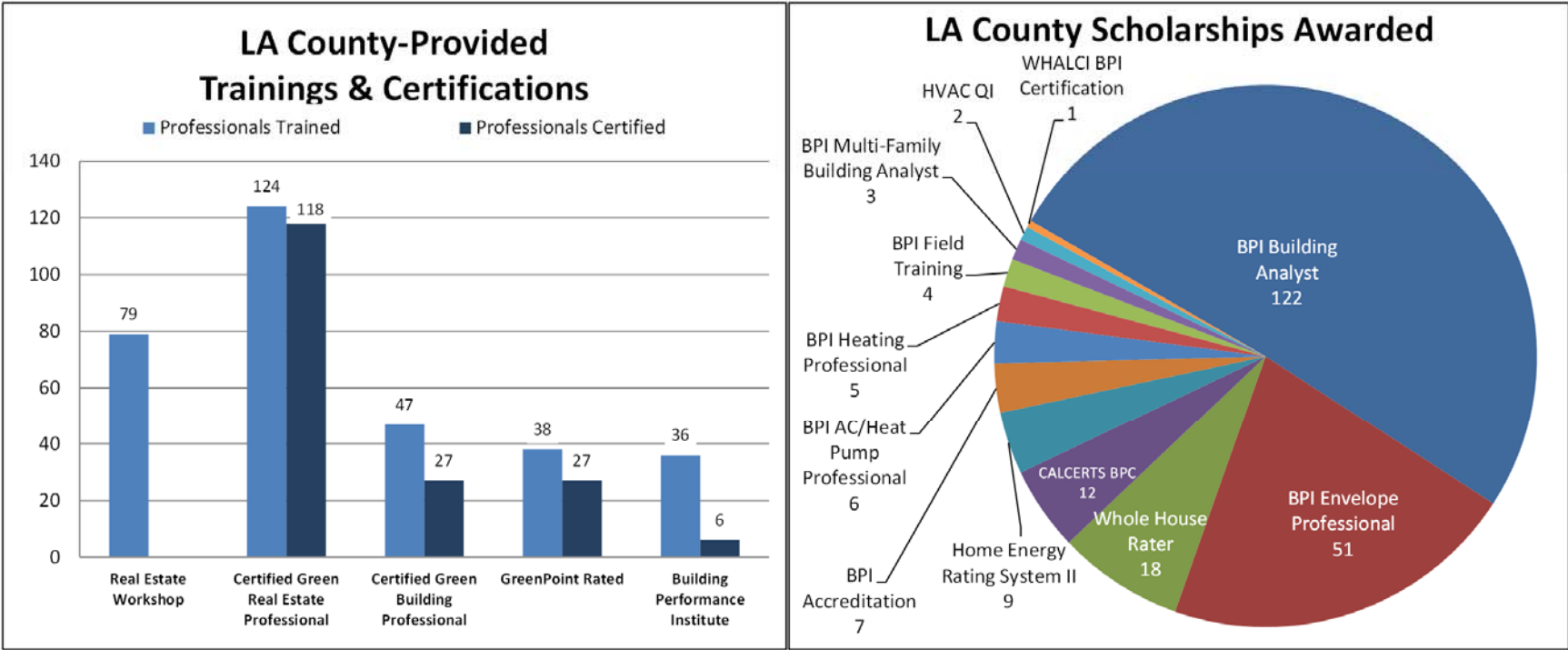


LA County Incentive Check Processing





LA County Workforce Development



The number of people who have been trained and received the certification to date through trainings provided by Build It Green and CBPCA. Trainings were provided at LA County's direction. There is often a lag time between the date of training and when the certification is complete. Not all courses have a certification attached.

Certifications include Certified Green Real Estate Professional, Certified Green Building Professional, GreenPoint Rater Existing Home, and Building Performance Institute Building Analyst. Certifications pending test results.

Trainings include: How to Make Money Selling Green Homes, Certified Green Real Estate Professional, Certified Green Building Professional, GreenPoint Rated Core, GreenPoint Rated Existing Home, Advanced Package and BPI Training Series.

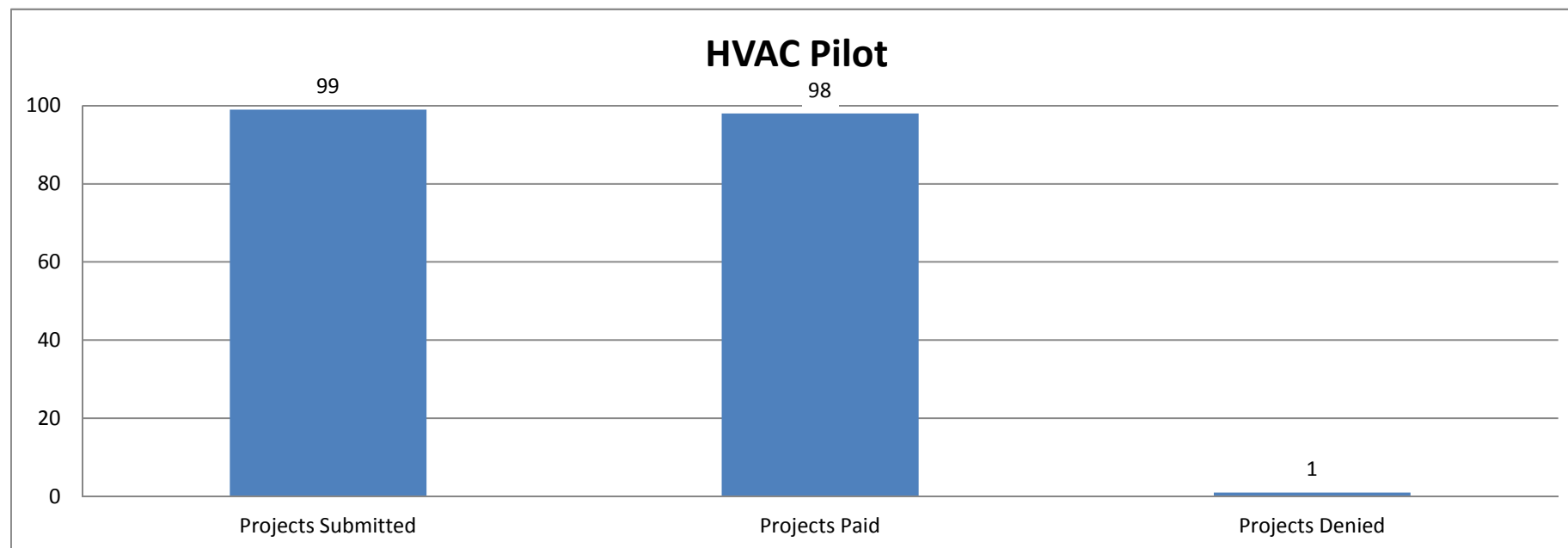
People awarded scholarships under the Los Angeles County Contractor Scholarship program. Scholarships were awarded to individuals who showed proof of achieving a qualified certification.





in Los Angeles County

LA County HVAC Pilot



	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13	Apr-13	May-13**	Total
Projects Submitted	5	13	16	7	11	12*	15	20	0	0	0	0	0	99
Projects Paid	1	5	0	7	8	11	0	22	18	15	10	0	1	98
Projects Denied	0	1	0	0**	0	0	0	0	0	0	0	0	0	1
Flex-to-Advanced Projects Ratio	3 to 1	13 to 0	17 to 0	7 to 0	10 to 1	12 to 0	15 to 0	20 to 0	0 to 0	0 to 0	0 to 0	0 to 0	0 to 0	97 to 2
Participating Contractors	19	2	2	2	0	0	0	0	0	0	0	0	0	25
Contractors Trained in QI	13	0	0	0	0	0	0	0	0	0	0	0	0	13
Software Subsidies	16	0	1	1	0	0	0	0	13	0	0	0	0	31
Wrightsoft Training Scholarships	2	0	0	0	0	0	0	0	25	0	0	0	0	27
New EUC Participating Contractors	8	1	1	0	0	0	0	0	0	0	0	0	0	10

*A project shown in previous dashboards as having been denied in August was amended and re-opened in October. Payment was made in December.

**Program ended May 31st.